IV. REMARKS

Status of the Claims

Claims 1, 7, 13 and 62-64 are amended. Claims 1, 3-7, 9-11,13,16,19,21-37 and 44-64 are presented for further consideration.

Summary of the Office Action

Claims 1,7 and 13 stand rejected under 35USC103(a) on the basis of the cited reference Sanemitsu, U.S. Patent No. 5,708,853, in view of the teaching of Koppa, U.S. Patent No. 6,088,746.

Claims 3-5,9-11,16,21-29,31-37, and 44-61 stand rejected under 35USC103(a) on the basis of the combined teachings of the references Sanemitsu and Koppa and further in view of the reference Endsley, U.S. Patent No. 6,005,613.

Claim 6 stands rejected under 35USC103(a) on the basis of the reference Sanemitsu in view of the teachings of Koppa and Endsley and further in view of the disclosure of Miyake, U.S. Patent No. 6,400,413.

Claims 19 and 30 stand rejected under 35USC103(a) based on the reference Sanemitsu in view of the teachings of Koppa and further in view of the disclosure of Hsieh, et al, U.S. Patent No. 5,969,750. The Examiner is respectfully requested to reconsider his rejection in view of the following remarks.

Claims 62-64 stand rejected under 35USC103(a) based on the reference Harris, et al, U.S. Patent No. 6,009,336 in view of the teachings of Aruga, et al, U.S. Patent No. 6,429,896.

The claims of this application are amended to clarify that the cameral module is integral with the electronic device and

thereby avoid the confusion with the use of the word "integrated".

Applicant has amended the claims to clarify the novel features of the invention for which protection is sought in this application. These amendments are submitted after final rejection in order to place the claims in condition for allowance or in the alternative to place the claims in better condition for appeal. The Examiner is requested to exercise his discretion and enter these amendments.

In rejecting the claims, the examiner has cited, for the first time, the references Harris and Aruga in support of the rejection of claims 62-64. The citation of this new reference was not necessitated by Applicant's prior amendments and accordingly, the issuing of a final rejection is improper under MPEP section 706.07(c) where it is stated:

> **"While the rules no longer give to an applicant the right to "amend as often as the examiner presents new references or reasons for rejection," present practice does not sanction hasty and ill-considered final rejections. The applicant, who is seeking to define his or her invention in claims that will give him or her the patent protection to which he or she is justly entitled should receive the cooperation of the examiner to that end, and not be prematurely cut off in the prosecution of his or her application."**

The Examiner is respectfully requested to reconsider the final nature of the pending office action and his rejection in view of the above amendments and the following arguments. The entering of the above amendments will permit the clarification of the issues for appeal or the allowance of the claims.

Discussion of the Cited References

The Examiner has repeated the rejection of pending independent claims 1,7, and 13 primarily on the basis of the combined teachings of the cited references Sanemitsu and Koppa.

Sanemitsu's patent relates to an IC card including an image input device and an acoustic input device (see abstract) which can be inserted into a corresponding IC card slot (column 1, lines 52 to 55) of a computer or personal assistant device in order to provide that device with image and sound transmission capabilities. In at least some embodiments, Sanemitsu's IC card can be inserted into a notebook-sized computer in such a way that it is completely enclosed by the structure of the computer (see Figures 3 and 4 together with their corresponding descriptions from column 3, line 60 to column 4, line 19). In these embodiments, holes are provided in the housing of the computer in locations corresponding to the positions of the image input device and acoustic input device of the IC card so that light and sound may be received by the image and acoustic input devices in the IC card.

Köppä's patent, on the other hand, relates in general to expansion cards for use with electronic devices such as mobile telephones or computers. As explained in column 1 between lines 11 and 31, such expansion cards are connected to the host device with a connector and are typically implemented according to a standard (e.g. the PCMCIA standard), which defines the function of each pin of the connector. Köppä's patent presents a mechanism enabling an operating mode of an IC card to be set by supplying a signal via a pin of a standard connector that is usually used for another purpose according to the standard (see, for example, column 3, lines 43 to 47, column 4 line 66 to column 5, line 19 and column 5, Table 1). As part of the disclosure of one of Köppä's embodiments, it is mentioned that data is transferred in serial form between the expansion card and the electronic device to which it is connected (column 7, lines 25 to 34).

In his rejections of the independent claims 1,7, and 13, the Examiner states that it would have been obvious to a person of

ordinary skill in the art to combine the teachings of Sanemitsu with those of Köppä in order to arrive at the invention claimed in the present application. However, the Applicant respectfully disagrees with this view since both Sanemitsu and Köppä relate to the structure (Sanemitsu) and data transfer characteristics (Köppā) of an IC/expansion card that is connected to a host device.

The claims of the present invention, on the other hand, relate to the transmission of image information between a camera module and an electronic device, where the camera module is an integral part of the electronic device (see newly amended claim 1, for example). Neither Sanemitsu's IC card nor Köppā's expansion card are constructed as an integral part of their respective host devices. The devices of Sanemitsu and Koppa are peripheral/additional devices that can be connected or disconnected and used in connection with the host device. They are separate devices, not integral components of the host. Therefore even a combination of Köppā with Sanemitsu, as suggested by the Examiner, cannot possibly render the present invention obvious. At least for this reason, the Applicant considers that the claims as newly amended are patentably distinct from the teachings of Sanemitsu and Köppā when considered either in isolation or in combination. The Examiner has failed to support a prima facie case of obviousness.

In view of the further amendment to the independent claims 1,7, 13, and 62-64 of this application, applicant submits the following comments with respect to the cited art. More specifically, the reference Sanemitsu discloses an IC card having camera, microphone, and modem for use in information processors. The IC card also comprises a transmission controller which transmits electrical signals received from the camera and the microphone to a telephone or a

communication line. The IC card has a connector for connecting the IC card to a portable computer or to a communication line. The IC card therefore provides visual and audio information during e.g. a video conference. In the IC card of Sanemitsu an image (an optical signal) captured by the camera is converted to an electrical signal and the electrical signal is coded in real time by an image encoder to image data to be input to a signal multiplexer/demultiplexer. At the same time a sound signal is also converted to electrical signal and coded in real time to be input to the signal multiplexer/demultiplexer. The coded image data and sound data are alternatively transmitted through the communication interface to the communication line. There is no indication that the operation of the camera could be controlled by the CPU 16 or another device (e.g. the portable computer) with which the IC card is coupled. Therefore, the other device only receives the information from the IC card without controlling the transmission of the information. Sanemitsu is also silent on the possibility to change the image resolution or any other parameters of the capture of images. Furthermore, the image and sound signal are coded in real time.

Köppä, more specifically, relates to selecting one of a plurality of operation modes for an expansion card. There is a mode selection line or lines that can be used to select the operation mode for the expansion card. After the mode selection is performed, the mode selection line or lines can be used for original purpose of the line(s). Therefore, Köppä teaches how the number of lines of an expansion card interface can be reduced. At most, Köppä discloses that digital data can be transferred from an expansion card to an electronic device in serial form. However, there is no indication in Köppä that the expansion card comprises a camera. Therefore, Köppä teaches nothing which relates to image capturing, image

storage, image transfer, and controlling the image capturing and/or transfer. Also the combination of Sanemitsu and Köppä does not teach anything which could make the present invention obvious to an expert in the field, because neither of these publications disclose details of an electronic device, having an integrally constructed camera module, and:

- controlling the image capture process,
- controlling the transfer of images by the host device.

The Examiner further relies on the reference Endsley to support the rejection of claims 3-5,9-11,16,21-29,31-37, and 44-61 in combination with Sanemitsu and Koppa. Endsley discloses a multi-mode digital camera with computer interface using data packets combining image and mode data. (abstract, summary, col 2). Usage of a USB data transfer models is described in column 4, lines 20-47. Two pipes are formed: one message pipe for transferring control data to the camera, and one stream pipe for transferring image data from the camera. In column 3, lines 17-18 it is stated that the camera data is processed in the host computer. In column 4, lines 60-65 it is disclosed that the host computer controls the capturing process of the camera.

The digital camera of Endsley, captures images and transfers the captured images to a host computer. A digital interface is provided for transferring the digitized image data to the host computer.

In col. 4, lines 60-65 of Endsley, it is indicated that the host computer controls the camera picture-taking process by instructing the camera when to take still or motion pictures, and setting the electronic exposure time and the analog gain in the CDS/gain block via the microprocessor. There is no mention that host computer controls the USB hardware and

software that provides communication between the host and the camera.

Based on the above analysis, there are significant differences between the prior art publications and the present invention namely, that, in the prior art publications, only the capturing (and parameters relating to it) are controlled by the electronic device (US 6,005,613). According to the present invention, the transfer of the images is controlled by the electronic device. Such controlling of the image transfer is not disclosed in the prior art publications.

In the prior art publications controlling of the host device relates to setting capturing parameters or functions /modes, but the actual transfer parameters (separately from the storing or mode settings) are not adjustable by the electronic device, i.e. the host computer.

In addition in claims 26,36, and 50, the images are captured and stored at maximum resolution. Although the Examiner has also rejected these claims as being unpatentable over Sanemitsu in view of Köppä in further view of Endsley (US 6,005,613) by referring to Fig. 1a and col. 5, lines 55–66 of Endsley. At column 5, lines 57–59 of the reference Endsley, it is mentioned that "*...the desired color plane (Red, Green, Blue) is accordingly subsampled as the data is stored into the line store 34.*" (emphasis added). Therefore, the image is not stored with maximum resolution but with reduced (subsampled) resolution.

The Examiner has rejected claims 62-64 on the basis of the disclosures of the newly cited references Harris and Aruga. The device of the reference Harris is briefly described in the Abstract according to the following:

> **"A communication device (104) includes two housings (108, 110), each containing circuitry (114, 115, 116, 117, 118, 122, 123) for operating the communication device (104) in different modes (700, 702, 704, 706, 730, 732). The communication device (104) includes a latch (112) for detachably coupling the two housings (108, 110) and rotating one housing (110/108) with respect to the other (108/110). The communication device (104) switches between the different modes (700, 702, 704, 706, 730, 732) based on the attachment or detachment and the relative position of the housings (108, 110)."**

The housing 108 contains the basic components of the host device including power supply, microprocessor, memory and others. The housing 110 contains a display coupled to a camera and communicates with the housing 108 via IR modems 172 and 160.

The Examiner characterizes the camera module as follows:

> **"Harris, et al disclose.....the camera module(user interface 123) being non-removable, integrated component of the electronic device (via swivel 190)....."**

This statement is not supported by the disclosure of Harris. the user interface comprises the display 184. The display is coupled to the camera 188 within housing 110 and the housing 110 is clearly described as detachable via latch 112 from the electronic device in housing 108. The system of Harris, et al is similar to that of the cited reference Sanemitsu. According to the Examiner's definitions, the camera of housing 110 may be integrated with the electronic device of housing 108, but is not integral as required by the claims as amended.

This deficiency is not remedied by combination with the disclosure of Aruga, et al which is cited for showing a serial connection, similar to that of the reference Koppa.

The Issue of obviousness

It is well settled that in order to establish a prima facie case for obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, without reference to the disclosure of this application.

Applicant submits that the above described deficiencies of the primary references Sanemitsu and Koppa are not remedied by the proposed combination with the teaching of the reference Endsley. Similarly the deficiencies of the cited reference Harris are not remedied by combination with Aruga. None of the references cited by the Examiner either alone or in combination disclose a camera module that is constructed as an integral part of a host electronic device and that provides the feature of:

- controlling the transfer of images by the host device.

The combined references do not therefore support a prima-facie case of obviousness. The modification of the teachings of Sanemitsu, Koppa, and Endsley, or Harris and Aruga in order to obtain the invention, as described in the claims submitted herein, would not have been obvious to one skilled in the art.

Further, it does not appear that the Examiner has considered the claims as a whole but has dismantled the claims and pursued a search for the individual features. It is well settled that "the actual determination of the issue requires an evaluation in the light of the findings in those inquiries of the obviousness of the claimed invention as whole, not merely the differences between the claimed invention and the

prior art." (Graham v. John Deere Co., 383U.S.17). The court admonishes in In re Fritch, 972F.2d1260 as follow:

> **"It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that "one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention."**

None of the remaining references, cited by the Examiner, remedy the deficiencies of the disclosures of Sanemitsu and Koppa as described above. Therefore the above arguments also apply to the rejections of the dependent claims.

In view of the remarks stated above, Applicant submits that all of the claims under consideration contain patentable subject matter and favorable action by the Examiner is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

The Commissioner is hereby authorized to charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,

Geza C. Ziegler Jr.
Reg. No. 44,004

7 Sep 2005
Date

Perman & Green, LLP
425 Post Road
Fairfield, CT 06824
(203) 259-1800
Customer No.: 2512

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